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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/768,443	01/30/2004	Frederick Ware	RAMB-01033US1	8919
7590	08/04/2006		EXAMINER	NGUYEN, TRUNG Q
Kirk J. DeNiro, Esq. Vierra Magen Marcus Harmon & DeNiro LLP 685 Market Street Suite 540 San Francisco, CA 94105			ART UNIT	PAPER NUMBER
			2829	
				DATE MAILED: 08/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/768,443	WARE ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Trung Q. Nguyen	2829	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on amendment filed on 05/30/06.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-14 and 180-181 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-5 is/are rejected.  
 7) Claim(s) 6-14 is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                                                         |                                                                             |
|-------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | Paper No(s)/Mail Date. _____.                                               |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____. | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|                                                                                                                         | 6) <input type="checkbox"/> Other: _____.                                   |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-5 and 180-181 are rejected under 35 U.S.C. 102(e) as being anticipated by Komatsu et al. (U.S. 6, 631,486).

Regarding claims 1 and 180-181, Komatsu et al. disclose in Fig. 3, a test circuit 10, a first element 31 and second element 36 wherein first element comprises a transmitter when the second element comprises a receiver and vice versa (switch 34 can switch either first or second element connect to either receiver 33 or transmitter 32) and second element comprising at least one transmitter 32 and receiver 33.

Regarding claims 2-4, Komatsu et al. in column 6, the high and low speed receiver can operate in the range of 50-400Mbps, this is well known in the art that it is operating in a high frequencies.

Regarding claim 5, Komatsu et al. disclose in Fig 3, the test circuit includes a pattern generator 11 and pattern compare circuitry 12.

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 1-5 have been considered. Some of the arguments are moot in view of the new explanations provided in the rejection for applicant's benefit. The other arguments are not persuasive.
2. *The applicants argue that:*

Claim 1 calls for "A semiconductor device, comprising: a test circuit, a first element..." (Emphasis added). In contrast, Fig. 3 of Komatsu discloses a first semiconductor device (DUT 30) that is a single "semiconductor integrated circuit" (Co1. 8, lines 6-8) and a separate "tester 10". DUT 30 includes "first logic circuit 31" and "second logic circuit 36" along with "receiver 33" and "transmitter 32" that is separate from tester 10 that includes "data generator 11" and "comparator 12." Claim 1 of Komatsu et al. highlights this disclosure of two separate devices by claiming "receiving a low-transfer-rate signal from an external tester. . .while the integrated circuit is connected to the external tester. . ." (Emphasis added, Col. 11, lines 45-52.) See also claim 4 of Komatsu et al. that claims "an external tester." (Col. 12, line 22).

5. *The examiner respectfully disagree to the above argues because:*

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., first or second element) may not interpreted in light of the specification.

Komatsu et al. disclose in Fig. 3, a test circuit 10, a separate tester 10, this separate tester 10 combine receiver 33 and transmitter 32. Although Komatsu does not

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disclose tester 10 as an element, however, the term "element" can be interpreted as follow by Merriam-Webster dictionary:

Main Entry: el·e·ment 

Pronunciation: 'e-l&‐m&‐nt

Function: noun

Etymology: Middle English, from Anglo-French & Latin; Anglo-French, from Latin *elementum*  
1 a : any of the four substances air, water, fire, and earth formerly believed to compose the physical universe b plural : weather conditions; especially : violent or severe weather <battling the elements> c : the state or sphere natural or suited to a person or thing <at school she was in her element>

2 : a constituent part: as a plural : the simplest principles of a subject of study : RUDIMENTS b (1) : a part of a geometric magnitude <an infinitesimal element of volume> (2) : a generator of a geometric figure; also : a line or line segment contained in the surface of a cone or cylinder (3) : a basic member of a mathematical or logical class or set (4) : one of the individual entries in a mathematical matrix or determinant c : a distinct group within a larger group or community <the criminal element in the city> d (1) : one of the necessary data or values on which calculations or conclusions are based (2) : one of the factors determining the outcome of a process e : any of the fundamental substances that consist of atoms of only one kind and that singly or in combination constitute all matter f : a distinct part of a composite device g : a subdivision of a military unit

*Therefore, a tester or any object that contain transmitter or receiver is consider as an element.* Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

### ***Allowable Subject Matter***

3. Claims 6-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: claims 6 and 10 recite, inter alia, "at least one reference signal line that carries a voltage reference signal and wherein the test circuit includes at least one comparator circuit to compare at least one voltage signal representing received date with the voltage reference signal".

The art of record does not disclose the above limitations, nor would it be obvious to modify the art of record so as to include the above limitations.

***Conclusion***

4. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within two months of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Trung Nguyen** whose telephone number is **(571) 272-1966**. The examiner can normally be reached on Monday through Friday, 8:30AM –

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5:00PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Ha Nguyen** can be reached at (571) 272-1678.

**Trung Nguyen**

Patent Examiner  
Group Art Unit 2829  
August 2<sup>nd</sup>, 2006.

*Jel m Hf*  
JEROME HOLLINGTON  
PRIMARY EXAMINER  
Au2829  
08/02/06